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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,353	11/01/2001	William R. Kennedy	KDY 9485	5231
321	7590	05/18/2005	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			A, PHI DIEU TRAN	
			ART UNIT	PAPER NUMBER
			3637	

DATE MAILED: 05/18/2005

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GROUP 3600

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/003,353

Filing Date: November 01, 2001

Appellant(s): KENNEDY ET AL.

Michael G. Munsell
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/25/05.

H/C

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 1-9, 14, 31-45 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

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(9) Prior Art of Record

re36853	KENNEDY ET AL	9-2000
6481179	ZEN	11-2002

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, 14, 31-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al (Re36853) in view of Zen (6481179).

Kennedy et al shows a door leaf/installation (27, 29) mounted on hinges (115, 117), in a door frame (23) for swinging in a doorway of a mine passage (P) on a column (43), the door leaf having at least four edges, the frame directly supporting two of the edges when the door is in the closed position, another two of the edges being substantially free of direct support, the supported edges including an upper edge and a first vertical edge, the free edges being a lower edge and a second vertical edge opposite the first vertical edge, the upper edge is supported by the doorway frame and the vertical edge is supported by at least one hinge mounted to the doorway frame, the door including two door leafs.

Kennedy et al does not show the central core of the door leaf being of solidified composition, outer panels filled with a fire resistant polyurethane foam through which the adhesive foam creates a mechanical coupling of core and panels, frame having top and bottom, and sides, one or more filling holes and rebar-type elements for mechanical coupling of the core.

Zen shows a door leaf/installation of laminated construction, the door having the central core of the door leaf being of solidified composition, outer panels (3) filled with a fire resistant polyurethane foam (col 2 line 22) through which the adhesive foam creates a mechanical coupling of core and panels, frame having top (6), bottom (7), and sides (5), one or more filling holes (col 2 line 66 and col 3 line 4) and rebar-type elements (12) for mechanical coupling of the core (4) to the panels.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kennedy et al's structure to show the central core of the door leaf being of solidified composition, outer panels filled with a fire resistant polyurethane foam through which the adhesive foam creates a mechanical coupling of core and panels, frame having top and bottom, and sides, one or more filling holes and rebar-type elements for mechanical coupling of the core to the panels as taught by Zen since it has been held to be within the skill of a worker in the art to select these well known light weight and strong panels to provide the strength and durability of steel at a very low cost as an obvious matter of engineering design choice.

(11) *Response to Argument*

Applicant states that Zen does not teach or suggest that the insulation strengthens the door, examiner respectfully disagrees. The core of the door panel is formed of insulation which bonds with its supporting structure. The core when dried provides strength to the door since the

core is a solid when dried, with part of the core bonding to the doorframes. However, it is recognized that the frame of the door provides the majority of the strength. The argument is thus moot.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

With respect to applicant's argument that there is not motivation or suggestion to combine the references, examiner respectfully points out the following. First of all, Kennedy et al teach a door that must be strong. Zen teaches a door that is strong and economical to produce (column 1 lines 30-34). A worker in the art when making a decision to choose a door would have found it obvious to choose Zen's door as it is strong and inexpensive. Zen also suggests that the door would be a good substitute for previous steel clad doors. The suggestion to use Zen's door in place of Kennedy et al's door is thus suggested by Zen per the disclosed improved properties. The argument is thus moot.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The argument is thus moot.

In response to applicant's statements that the references are devoid of any teachings directed to the objectives relied upon (lightweight, strong, inexpensive) for providing motivation or suggestion to combine, examiner respectfully disagrees. As pointed out above, Zen teaches that the door would have increased strength, rigidity over previous frames, extremely economical to produce (column 1 lines 29-34). Also, a polyurethane foam core is much lighter than a steel core or a wooden core. Modifying Kennedy et al with Zen's door would result in a strong, economical, and lightweight door structure as suggested by Zen's disclosure. The argument is thus moot.

With respect to applicant's arguments that the rejection improperly relies upon applicant's disclosure, examiner respectfully disagrees. The suggestion or motivation was disclosed by the reference Zen with the improved door. The argument is thus moot.

With respect to applicant's arguments to "mechanical coupling", examiner respectfully points out that Zen as indicated above teaches "mechanical coupling". The insulation once dried, forms a mechanical coupling with the panels. With respect to applicant's statements that diagonal members would not act as a mechanical coupling between the panels and the core, examiner respectfully disagrees. The diagonal members are part of the overall assembly. The members are attached to the core, the panels, the jamb members directly or indirectly. The diagonal members thus provide mechanical coupling to the panels and the core. The claimed language "mechanical coupling" is broad and is interpreted accordingly. The argument is thus moot.

With respect to applicant's argument to the coupling device being at least one or wire screen or rebar-type elements, examiner respectfully points out that Zen shows the device being rebar-type elements (12) as set forth above. The argument is thus moot.

With respect to applicant's arguments that the mine door must be suitable for forces and stresses exerted on a door in a mine, examiner respectfully points out that the "force/stresses" is not clearly defined. Magnitude of the force/stresses is unclear in the claims, and there is no reason why Zen's door could not function as claimed. The argument is thus moot.

With respect to applicant's argument that Zen is for commercial, residential, industrial use, and thus not suited for use in a mine, examiner respectfully disagrees. As pointed out by applicant, Zen's door is for industrial use. Isn't mining an industry? The argument is thus moot.

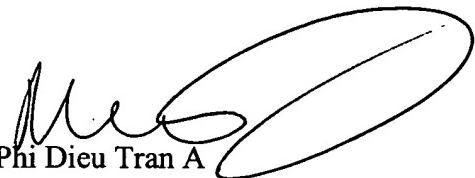
With respect to applicant's arguments that there is not reasonable expectation of success in modifying Kennedy et al in view of Zen, examiner respectfully disagrees. As pointed out above, modifying Kennedy with Zen would result in an economical and strong door. The needed properties are present in the combined references satisfying the intended use of Kennedy's teaching. The reasonable expectation of success is thus satisfied. The argument is thus moot.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,


Phi Dieu Tran A

May 13, 2005

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